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(54) **Semiconductor memory device and information processing system**

(57) A semiconductor memory device capable of performing transfer operation best suited to applications. An address input circuit (1) receives an input address, and a readout circuit (2) sequentially reads, from m of a plu-

rality of n banks (5-1, 5-2, ...5-n), where $m \leq n$, data corresponding to one address input via the address input circuit (1) in an automatic manner. A data output circuit (3) outputs the data read by the readout circuit (2) from the m banks to the outside as collective data.

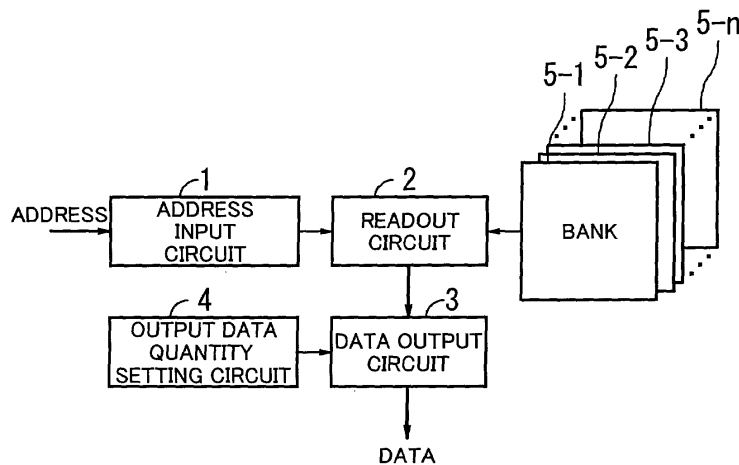


FIG. 1



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EUROPEAN SEARCH REPORT

Application Number
EP 02 25 0109

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			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			G11C
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 30 May 2005	Examiner Czarik, D
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

2
EPO FORM 1503 03 82 (P04C01)



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EUROPEAN SEARCH REPORT

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Place of search The Hague		Date of completion of the search 30 May 2005	Examiner Czarik, D
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

2
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European Patent
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Application Number
EP 02 25 0109

CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

- ☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claim(s):
- ☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

- ☒ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- ☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.
- ☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:
- ☐ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:



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**LACK OF UNITY OF INVENTION
SHEET B**

Application Number
EP 02 25 0109

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-5

A memory with sequential data output from a plurality of banks.

2. claims: 6-10

A memory with sequential data input and delayed write.

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 02 25 0109

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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30-05-2005

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82